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Attorney's Docket No. 5470.107BDV3

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Thorp, et al.
Serial No. 10/008,233
Filed: November 6, 2001
For: ELECTROCHEMICAL DETECTION OF NUCLEIC ACID
HYBRIDIZATION

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April 1, 2002

Commissioner for Patents
Washington, DC 20231

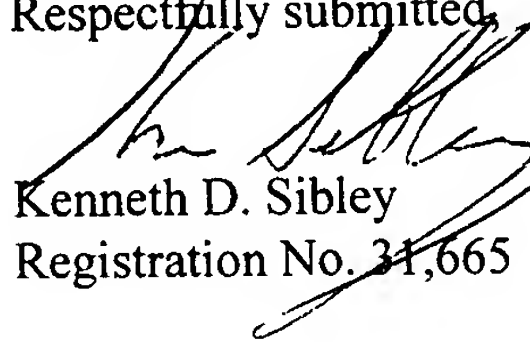
INFORMATION DISCLOSURE STATEMENT

Sir:

Attached is a list of documents on form PTO-1449. Items 1-33, 35-43, and 46-79 listed on the PTO-1449 were cited in parent application Serial No. 09/603,217, filed June 26, 2000. Since the benefit of this application is claimed under 35 U.S.C. §120, no copies need to be furnished in accordance with 37 C.F.R. §1.98(d); however, copies will be furnished on request. It is requested that these documents be considered by the Examiner and officially made of record in accordance with the provisions of 37 C.F.R. §1.97 and Section 609 of the MPEP.

Item(s) 34 and 45-46 were not previously submitted, and it is requested that this these documents be considered by the Examiner and officially made of record in accordance with the provisions of 37 C.F.R. §1.97 and Section 609 of the MPEP. The Commissioner is hereby authorized to charge any additional fee, which may be required, or credit any refund, to our Deposit Account No. 50-0220.

Respectfully submitted,


Kenneth D. Sibley
Registration No. 31,665



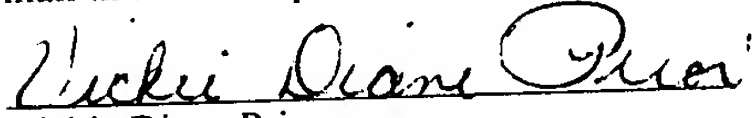
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PATENT TRADEMARK OFFICE

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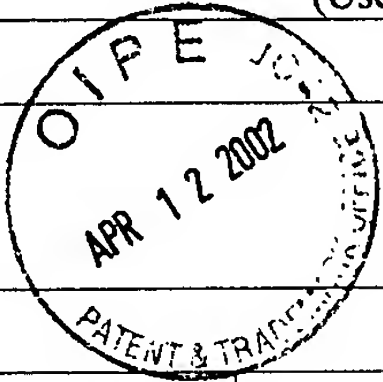
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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Washington, DC 20231, on April 1, 2002.

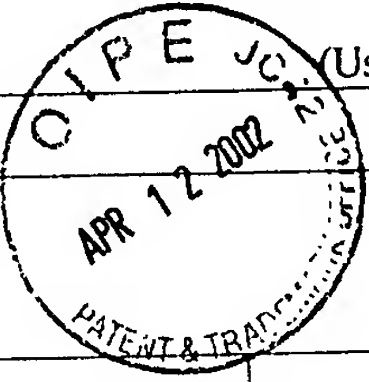


Vickie Diane Prior

Date of Signature: April 1, 2002

FORM PTO-1449 U.S. Department of Commerce Patent and Trademark Office				Attorney Docket Number 5470-107BDV3		Serial No. 10/008,233	
LIST OF DOCUMENTS CITED BY APPLICANT (Use several sheets if necessary)							
 <p style="text-align: center;">COPY OF PAPERS ORIGINALLY FILED</p>				Applicants: Thorp et al.			
				Filing Date 6 November 2001		Group 1655	
U. S. PATENT DOCUMENTS							
Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	1	4,545,382	10/08/85	Higgins et al.	128	635	
	2	4,683,195	7/28/87	Mullis et al.	435	6	
	3	4,683,202	7/28/87	Mullis	435	91	
	4	4,704,353	11/03/87	Humphries et al.	435	4	
	5	4,800,159	1/24/89	Mullis et al.	435	172.3	
	6	4,840,893	6/20/89	Hill et al.	435	6	
	7	4,883,579	11/28/89	Humphries et al.	204	403	
	8	4,908,307	3/13/90	Rodland et al.	435	6	
	9	4,945,045	7/31/90	Forrest et al.	435	25	
	10	4,963,815	10/16/90	Hafeman	324	715	
	11	4,965,188	10/23/90	Mullis et al.	435	6	
	12	5,066,372	11/19/91	Weetall	204	153.1	
	13	5,108,889	4/28/92	Smith	435	4	
	14	5,112,974	5/12/92	Barton	546	4	
	15	5,143,854	9/1/92	Pirrung et al.	436	518	
	16	5,149,630	09/22/92	Forrest et al.	435	7.9	
	17	5,157,032	10/20/92	Barton	514	185	
	18	5,171,853	12/12/92	Thorp et al.	536	27	
	19	5,175,082	12/29/92	Jeffreys	435	6	
	20	5,194,372	3/16/93	Nagai et al.	435	6	
	21	5,272,056	12/21/93	C.J. Burrows et al.	435	6	
	22	5,278,043	1/11/94	Bannwarth et al.	536	23.1	
	23	5,312,527	5/17/94	Mikkelsen et al.	204	153.12	
	24	5,378,628	1/03/95	Grätzel et al.	435	288	
	25	5,405,783	4/11/95	Pirrung et al.	436	518	
	26	5,439,829	8/8/95	Anderson et al.	436	518	
EXAMINER						DATE CONSIDERED	

* EXAMINER Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conference and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449 U.S. Department of Commerce Patent and Trademark Office				Attorney Docket Number 5470-107BDV3		Serial No. 10/008,233			
LIST OF DOCUMENTS CITED BY APPLICANT (Use several sheets if necessary)									
				COPY OF PAPERS ORIGINALLY FILED				Applicants: Thorp et al. Filing Date 6 November 2001	
						Group 1655			
	27	5,532,129	7/2/96	Heller	435	6			
	28	5,541,113	7/30/96	Siddigi et al.	436	56			
	29	5,545,531	8/13/96	Rava et al.	435	6	RECEIVED APR 18 2002 TECH CENTER 1600/29		
	30	5,565,322	10/15/96	Heller	435	6			
	31	5,605,662	2/25/97	Heller et al.	422	68.1			
	32	5,632,957	5/27/97	Heller et al.	422	68.1			
	33	5,744,305	4/28/98	Fodor et al.	435	6			
	34	5,871,918	2/16/99	Thorp et al.	435	6			
	35	5,874,219	2/23/99	Rava et al.	435	6			
FOREIGN PATENT DOCUMENTS									
		Document Number	Date	Country	Class	Subclass	Translation Yes No		
	36	3076600	04/02/92	Japan			X		
	37	WO93/20230	10/14/93	PCT			X		
	38	0 478 319	4/1/92	EPO			X		
	39	WO 85/02627	6/20/85	PCT			X		
	40	WO 91/15768	10/17/91	PCT			X		
	41	WO 94/22889	10/13/94	PCT			X		
	42	WO 95/00530	1/5/95	PCT			X		
	43	WO 97/02359	1/23/97	PCT			X		
	44	WO 93/22678	11/11/93	PCT			X		
	45	WO 95/12808	5/11/95	PCT			X		
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)									
	46	D. H. Johnston et al.; <i>Electrochemical Measurement of the Solvent Accessibility of Nucleobases Using Electron Transfer between DNA and Metal Complexes</i> , <u>J. Am. Chem. Soc.</u> 117 :8933-8938 (1995).							
	47	K. M. Millan et al.; <i>Sequence-Selective Biosensor for DNA Based on Electroactive Hybridization Indicators</i> , <u>Anal. Chem.</u> 65 :2317-2323 (1983).							
	48	W. Bains; <i>The Chip of the 90s</i> , <u>Chem. in Britain</u> 122-125 (Feb. 1995).							
	49	T. J. Meade et al.; <i>Electron Transfer through DNA: Site-Specific Modification of Duplex DNA with Ruthenium Donors and Acceptors</i> , <u>Angew. Chem. Int. Ed. Engl.</u> 34 No. 3:352-354 (1995).							
	50	S. P. A. Fodor et al.; <i>Multiplexed biochemical assays with biological chips</i> , <u>Product Review</u> 364 :555-556 (1993).							
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FORM PTO-1449 U.S. Department of Commerce Patent and Trademark Office		Attorney Docket Number 5470-107BDV3		RECEIVED Serial No. 107008,233
LIST OF DOCUMENTS CITED BY APPLICANT (Use several sheets if necessary)		APR 18 2002 TECH CENTER 1600/2900		
COPY OF PAPERS ORIGINALLY FILED		Applicants: Thorp et al. Filing Date 6 November 2001		Group 1655
	51	S.P.A. Fodor et al.; <i>Light-Directed, Spatially Addressable Parallel Chemical Synthesis</i> , <u>Science</u> 251:767-773 (1991).		
	52	Z. Du et al.; <i>Automated Fluorescent DNA Sequencing of Polymerase Chain Reaction Products</i> , <u>Methods in Enzymology</u> 218:104-121 (1993).		
	53	J. M. Hall et al.; <i>An Electrochemical Method for Detection of Nucleic Acid Hybridisation</i> , <u>Biochem. and Molecular Bio. Int'l.</u> 32: No. 1, 21-28 (1994).		
	54	D. Noble; <i>DNA Sequencing on a Chip</i> , <u>Anal. Chem.</u> 67, No. 5:201-204 (1995).		
	55	Y. Jenkins et al.; <i>A Sequence-Specific Molecular Light Switch: Tetherin of an Oligonucleotide to a Dipyridophenazine Complex of Ruthenium(II)</i> , <u>J. Am. Chem. Soc.</u> 114:8736-8738 (1992).		
	56	K. M. Millan et al.; <i>Voltammetric DNA Biosensor for Cystic Fibrosis Based on a Modified Carbon Paste Electrode</i> , <u>Anal. Chem.</u> 66:2943-2948 (1994).		
	57	M. T. Carter et al.; <i>Voltammetric Studies of the Interaction of Metal Chelates with DNA. 2. Tris-Chelated Complexes of Cobalt(III) and Iron(II) with 1,10-Phenanthroline and 2,2'-Bipyridine</i> , <u>J. Am. Chem. Soc.</u> 111:8901-8911 (1989).		
	58	S. A. Strobel et al.; <i>Minor Groove Recognition of the Conserved G□U Pair at the Tetrahymena Ribozyme Reaction Site</i> , <u>Science</u> 267:675-679 (1995).		
	59	T. Ried et al.; <i>Simultaneous visualization of seven different DNA probes by in situ hybridization using combinatorial fluorescence and digital imaging microscopy</i> , <u>Proc. Natl. Acad. Sci. USA</u> 89:1388-1392 (1992).		
	60	R. Tizard et al.; <i>Imaging of DNA sequences with chemiluminescence</i> , <u>Proc. Natl. Acad. Sci. USA</u> 87:4514-4518 (1990).		
	61	A. Lishanski et al.; <i>Mutation detection by mismatch binding protein, MutS, in amplified DNA: Application to the cystic fibrosis gene</i> , <u>Proc. Natl. Acad. Sci. USA</u> 91:2674-2678 (1994).		
	62	C. J. Murphy et al.; <i>Fast photoinduced electron transfer through DNA intercalation</i> , <u>Proc. Natl. Acad. Sci. USA</u> 91:5315-5319 (1994).		
	63	S. A. Strobel et al.; <i>Site-Specific Cleavage of a Yeast Chromosome by Oligonucleotide-Directed Triple-Helix Formation</i> , <u>Science</u> 249:73-75 (1990).		
	64	C. J. Murphy et al.; <i>Long-Range Photoinduced Electron Transfer Through a DNA Helix</i> , <u>Science</u> 262:1025-1029 (1993).		
	65	D. H. Johnston et al.; <i>Trans-Dioxorhenium(V)-Mediated Electrocatalytic Oxidation of DNA at Indium Tin-Oxide Electrodes: Voltammetric Detection of DNA Cleavage in Solution</i> , <u>Inorg. Chem.</u> 33: 6388-6390 (1994).		
	66	M. Maeder et al.; <i>Nonlinear Least-Squares Fitting of Multivariate Absorption Data</i> , <u>Anal. Chem.</u> 62: 2220-2224 (1990).		
	67	M. Rudolph et al.; <i>A Simulator for Cyclic Voltammetric Responses</i> , <u>Analytical Chemistry</u> 66:589-600 (1994).		
	68	J. Osteryoung; <i>Voltammetry for the Future</i> , <u>Acc. Chem. Res.</u> 26 No. 3: 77-83 (1993).		
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COPY OF PAPERS ORIGINALLY FILED		Applicants: Thorp et al. TECH CENTER 1600/2900 Filing Date 6 November 2001	Group 1655
69	M. A. Tracy et al; <i>Dynamics of Rigid and Semirigid Rodlike Polymers</i> , <u>Annu. Rev. Phys. Chem.</u> 43 : 525-557 (1992).		
70	A. M. Pyle et al; <i>Mixed-Ligand Complexes of Ruthenium(II): Factors Governing Binding to DNA</i> , <u>J. Am. Chem. Soc.</u> 111 :3051-3058 (1989).		
71	O. S. Fedorova et al; <i>Application of Tris (2,2'-bipyridyl) ruthenium(III) for the Investigation of DNA Spatial Structure by a Chemical Modification Method</i> , <u>Journal of Inorganic Biochemistry</u> 34 :149-155 (1988).		
72	S. Satyanarayana, et al; <i>Neither Δ- nor Λ-Tris(phenanthroline)ruthenium(II) Binds to DNA by Classical Intercalation</i> ; <u>Biochemistry</u> 31 No. 39:9319-9324 (1992).		
73	J. A. Saleeba et al; <i>[19]Chemical Cleavage of Mismatch of Detect Mutations</i> , <u>Methods in Enzymology</u> 217 : 286-295 (1993).		
74	S. Steeken et al; <i>One-Electron-Reduction Potentials of Pyrimidine Bases, Nucleosides, and Nucleotides in Aqueous Solution. Consequences for DNA Redox Chemistry</i> , <u>J. Am. Chem. Soc.</u> 114 : 4701-4709 (1992).		
75	K.R. Khrapko et al; <i>Hybridization of DNA with oligonucleotides immobilized in gel: convenient method for detection of single base changes</i> , <u>Mol. Biol.</u> 25 (3): 718 (1991).		
76	L. J. Maher III; <i>Inhibition of T7 RNA Polymerase Initiation by Triple-Helical DNA Complexes: A Model for Artificial Gene Repression</i> , <u>Biochemistry</u> 31 No. 33; 7587-7594 (1992).		
77	Adams et al.; editors <i>The Biochemistry of Nucleic Acids</i> , <u>Chapman & Hall, New York</u> , pp 519-524 (1992)		
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